# IoT for Smart Cities: Machine Learning Approaches in Smart Healthcare - A Review

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## Abstract

Smart city is a collective term for technologies and concepts that are directed toward making cities efficient, technologically more advanced, greener and more socially inclusive. These concepts include technical, economic and social innovations. This term has been tossed around by various actors in politics, business, administration and urban planning since the 2000s to establish tech-based changes and innovations in urban areas. The idea of the smart city is used in conjunction with the utilization of digital technologies and at the same time represents a reaction to the economic, social and political challenges that post-industrial societies are confronted with at the start of the new millennium. The key focus is on dealing with challenges faced by urban society, such as environmental pollution, demographic change, population growth, healthcare, the financial crisis or scarcity of resources. In a broader sense, the term also includes non-technical innovations that make urban life more sustainable. So far, the idea of using IoT-based sensor networks for healthcare applications is a promising one with the potential of minimizing inefficiencies in the existing infrastructure. A machine learning approach is key to successful implementation of the IoT-powered wireless sensor networks for this purpose since there is large amount of data to be handled intelligently. Throughout this paper, it will be discussed in detail how AI-powered IoT and WSNs are applied in the healthcare sector. This research will be a baseline study for understanding the role of the IoT in smart cities, in particular in the healthcare sector, for future research works.